

FACTSHEET

Final Remedy Selection

FORMER HEATCRAFT REMEDIATION FACILITY
602 SUNNYVALE DRIVE
WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
EPA ID NUMBER: NCD 057 451 270

The former Heatcraft Remediation Facility (“Heatcraft”) submitted a *Remedial Strategy Outline* on August 23, 2016. The remedial strategy outlines the environmental media that have been impacted, potential exposure pathways, and remedial actions that have been or will be taken to address potential health risks and achieve regulatory objectives. The proposed remedial strategy includes components of source control, in situ treatment, containment of offsite migration, and solvent mass removal. In *Memorandum of Final Remedy Selection*, dated May 22, 2018, the Hazardous Waste Section (“HWS”) formalized remedial selection to treat contaminated media under the Federal Resource Conservation and Recovery Act (RCRA).

North Carolina has been authorized by the United States Environmental Protection Agency to administer RCRA including the Hazardous and Solid Waste Amendments (HSWA) of 1984. The North Carolina Department of Environmental Quality Hazardous Waste Section has determined that the former Heatcraft Remediation Facility’s proposed recommendations as described in the *Remedial Strategy Outline* and the *Memorandum of Final Remedy Selection* satisfy the full intent of the North Carolina Hazardous Waste Management Rules and Solid Waste Management Act as amended. When finalized, the *Memorandum of Final Remedy Selection* will constitute a final remedy under the Federal Resource Conservation and Recovery Act.

Background

The Facility is located at 602 Sunnyvale Drive in Wilmington, New Hanover County, North Carolina. The operational portion of the Facility is located on approximately 16.28 acres and is zoned industrial. The Facility includes a 230,000-square foot building comprising office space, a large manufacturing or warehouse area, a maintenance shop, and loading docks. Surrounding properties to the north and west consist of industrial facilities. Undeveloped woodlands to the south are also zoned as industrial land. Properties to the east and southeast are zoned residential.

Prior to the 1960’s, the property was undeveloped land. The property was purchased and developed by Singer Company during the 1960’s. Specifics related to the date of purchase and subsequent development are not known. SnyderGeneral Corporation purchased the Facility from Singer Company’s Climate Control division in 1982.

Former manufacturing operations included the fabrication of copper and aluminum heating and air conditioning heat exchangers from ~1960 until April 30, 1991. Process equipment was reportedly removed and the vacant manufacturing building was leased for purposes of warehousing and cardboard manufacturing in 1995-1996. Port City Distribution, LLC, leased the property from 1996 until January 2011, after which it purchased the property. Port City Distribution, LLC, constructs wooden crates and shipping containers.

There is no information concerning specific waste practices that occurred prior to the 1980’s. However, it is reported that trichloroethylene (TCE) was originally used for degreasing and cleaning purposes. The TCE was replaced by 1,1,1-trichloroethane (TCA) in 1976.

During the 1980’s, two primary waste streams were generated as part of operations conducted at the Facility.

The first waste stream was created as part of degreasing operations to clean the heating- and air-conditioning heat exchangers. Two or three times a week, degreasing vats containing either TCE or TCA were allowed to

boil down to a sludge which was then drained into a 55-gallon drum equipped with a pump. The sludge was then pumped into one of two aboveground storage tanks (2,500-gallons and 3,000-gallons in capacity, respectively). Approximately every 75 days, the waste was transported to the Prillaman Company in Martinsville, Virginia, for recycling.

The second waste stream was produced from the paint booth that was located northwest of the manufacturing building. Paint and virgin paint thinner were stored onsite prior to being used in the paint booth. As needed, paint was applied to the cabinetry that housed the heating- and air-conditioning equipment that was produced at the Facility. After painting, paint thinners were used to clean the associated paint spray guns. The paint waste and spent thinner were collected and stored in drums and other alternate disposal containers provided by the Prillaman Company.

Two releases have been documented. The first documented release occurred on November 18, 1983, when one of the two former aboveground storage tanks was discovered to be leaking. It was estimated that approximately 400 to 500 gallons of waste TCA had been released and had entered a drainage ditch located adjacent to the northwest property line. The State of North Carolina, Division of Health Services, Environmental Health Section, Solid Waste Management Branch (State) was notified of the release. The State advised that the release be contained and that impacted soils be removed.

The second documented release occurred on July 16, 1987, when a drum containing vapor degreasing sludge was observed overflowing and discharging into the same ditch impacted in the 1983 release. It was estimated that the 1987 release involved approximately 50 gallons of waste TCA. Information regarding the 1987 release was reported to the State on July 24, 1987.

To prevent the TCA from migrating offsite and potentially impacting the Cape Fear River, an earthen dam was constructed across the ditch. This dam formed an impoundment that was approximately 12 feet wide, 125 feet in length, and 4 feet deep. A concrete pad separated the waste management unit and the main manufacturing building.

Approximately 4,500 cubic feet of impacted soil were mixed with 350 bags of Portland cement on November 12, 1987, to solidify the contaminated soils in the impoundment. The solidified soils were excavated and shipped to the GSX Pinewood, South Carolina, landfill for disposal.

Contaminated environmental media include surface soil (less than two feet in depth); subsurface soil (greater than two feet in depth); groundwater in the unconfined, surficial aquifer; groundwater in the Peedee Aquifer; surface water; and indoor air. The constituents of concern are volatile organic compounds, including 1,1-dichloroethane; 1,1-dichloroethene; *cis*-1,2-dichloroethene; *trans*-1,2-dichloroethene; trichloroethylene; perchloroethylene; vinyl chloride; and 1,4-dioxane.

Remedy

Multiple phases of investigation have been completed at the Facility. The investigation is complete at this time given the physical constraints of the site (size, warehouse building, parking lot) and the denial of offsite property access. All potential sources of contamination have been identified and investigative findings are consistent with the site conceptual model.

Although investigative results are consistent with the site conceptual model, it is recognized that the site conceptual model is an evolving paradigm against which all data are tested. The final remedial strategy is broadly defined as ongoing active remediation in combination with perpetual land use restrictions.

Active remediation addresses contamination in the source area and acts to control offsite migration. These measures, in conjunction with implementation of land use restrictions, protect human health and the environment under current and future scenarios.

The remedial objective(s) are restoration of impacted media to established performance goals (i.e., 15A NCAC Subtitle 2L Groundwater Standards; 15A NCAC Subchapter 02B; Division of Waste Management Preliminary Soil Remediation Goals; and Division of Waste Management Indoor Air Screening Levels). These

performance goals are sufficiently stringent to ensure protection of human health. The remedial strategy may be fine-tuned or modified as conditions permit.

Specific remedial activities are described in the *Remedial Strategy Outline* (dated August 23, 2016). The following remedial activities are currently implemented at the Facility.

- Groundwater pump and treat, which is operated to reduce contamination in the source area and to provide hydraulic containment. Pump and treat addresses impacted groundwater in the unconfined, surficial aquifer and in the Peedee Aquifer. At this time, there are eight recovery wells installed in the unconfined, surficial aquifer and one recovery well installed in the Peedee Aquifer. Groundwater contaminant trends are evaluated in accordance with the most recently approved *Sampling and Analysis Plan* to confirm continued effectiveness and efficiency. Should increasing contaminant trends be documented, the recovery system may be expanded and/or enhanced.
- Air sparge, which is operated to reduce contamination in the unconfined, surficial aquifer and mitigate the discharge of contaminated groundwater to surface in the unnamed tributary. Groundwater and surface water trends are evaluated in accordance with the most recently approved *Sampling and Analysis Plan* to confirm continued effectiveness and efficiency. The air sparge system may be expanded in the event that surface water contaminant trends are unresponsive.
- Sub-Slab Depressurization, which is operated to recover solvent vapor phase from beneath the manufacturing building and mitigate indoor air impacts. Indoor air trends are evaluated in accordance with the most recently approved *Sampling and Analysis Plan* to confirm the continued effectiveness and efficiency. The sub-slab depressurization system may be expanded and/or augmented as conditions warrant.

Public Hearing

A public hearing will be held at 1:00 pm on Wednesday, July 18, 2018, at the New Hanover County (Main) Public Library, located at 201 Chestnut Street in Wilmington, North Carolina. All attendees will have the opportunity to present five-minute oral statements regarding the proposed final remedy and/or to submit written comments and data at the public hearing. You may also submit written comments at any time during the forty-five-day public comment period, which begins on June 18, 2018, and ends on August 2, 2018. Comments should be sent to the following address:

Julie S. Woosley, Chief
North Carolina Division of Waste Management
Hazardous Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

All data and information submitted by the parties representing the former Heatcraft Remediation Facility is part of the administrative record and available for your review. This information can be reviewed either in person in the Hazardous Waste File Room or online at the web address:

<https://deg.nc.gov/about/divisions/waste-management/waste-management-rules-data/e-documents>. Public notices related to this decision may be found at <http://deg.nc.gov/news/events/public-notices-hearings>.

The administrative record can also be viewed at any time using the above web address. Electronic files can be searched using the ID Number: *057451270*. Files can be filtered by selecting preferred document group and document type.